

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Shaurette on August 31, 2010.

The application has been amended as follows: (the inserted words/sentence is indicated in bold, and deleted word(s) is in brackets)

Claim 1:

A communications device identification method comprising: providing identification information regarding a group of wireless identification devices within a wireless communications range of a reader; using the provided identification information, selecting one of a plurality of different search procedures for identifying unidentified ones of the wireless identification devices within the wireless communications range; and identifying at least some of the unidentified ones of the wireless identification devices using the selected one of the search procedures[.]; **and wherein the search procedures individually include a plurality of steps which are performed to identify the wireless identification devices within the wireless communications range of the reader, wherein the steps of the selected one of the**

**search procedures are different than the steps of a non-selected one of the search procedures.**

Claim 12:

A communications device identification method comprising: identifying a first of a plurality of wireless identification devices within a wireless communications range of a reader configured to communicate with the wireless identification devices; identifying a second of the wireless identification devices within the wireless communications range of the reader; selecting one of a plurality of different search procedures using the identifying of the first and the second of the wireless identification devices; and identifying at least one unidentified wireless identification device within the wireless communications range using the selected one of the search procedures[.]; **and wherein the search procedures individually include a plurality of steps which are performed to identify the wireless identification devices within the wireless communications range of the reader, wherein the steps of the selected one of the search procedures are different than the steps of a non-selected one of the search procedures.**

Claim 20:

A wireless communications reader comprising: an antenna configured to communicate wireless signals within a wireless communications range; [and] processing circuitry coupled with the antenna and configured to implement wireless communications with a plurality of wireless identification devices within the wireless communications range via the antenna, to analyze a number of wireless identification

devices which may be present within the wireless communications range with respect to a range of identifiers of wireless identification devices which may be present within the wireless communications range, to select one of a plurality of search procedures using the analysis, and to identify at least one of the wireless identification devices within the wireless communications range using the selected search procedure[.]; **and wherein the search procedures individually comprise a plurality of steps which are performed by the processing circuitry to identify the wireless identification devices within the wireless communications range of the reader, and wherein the steps of the selected search procedure are different than the steps of a non-selected search procedure.**

Claim 32:

An article of manufacture comprising: at least one computer-readable storage medium comprising executable instructions stored thereon that are configured to cause processing circuitry of a wireless communications reader to: access information regarding a plurality of wireless identification devices which may be within a wireless communications range of the wireless communications reader; select one of a plurality of different search procedures using the accessed information, wherein the different search procedures comprise procedures for identifying unidentified ones of the wireless identification devices; and identify unidentified ones of the wireless identification devices using the selected one of the search procedures[.]; **and wherein the search procedures individually comprise a plurality of steps which are performed by the processing circuitry to identify the wireless identification devices within the**

**wireless communications range of the reader, and wherein the steps of the selected one of the search procedures are different than the steps of a non-selected one of the search procedures.**

Claim 36: **Cancel claim 36.**

Claim 38: **Cancel claim 38.**

Claim 40: **Cancel claim 40.**

Claim 50: **Cancel claim 50.**

Claim 53: **Cancel claim 53.**

Claim 55: **Cancel claim 55.**

Claim 57: **Cancel claim 57.**

***Allowable Subject Matter***

2. Claims 1-7, 9-15, 17-35, 37, 39, 41-49, 51, 52, 54, 56 and 58 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding **claim 1**, Becker et al 20040046642 discloses a communications device identification method comprising: providing identification information (group address, see p.4, [0048]) regarding a group of wireless identification devices (RFID tags, see fig. 1, p.2, [0025]) within a wireless communications range of a reader (tag reader 12, see fig. 1, p.2, [0025]); and identifying at least some of the unidentified ones of the wireless identification devices using a search procedure (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

The instant invention discloses using the provided identification information, selecting one of a plurality of different search procedures for identifying unidentified

ones of the wireless identification devices within the wireless communications range;  
and identifying at least some of the unidentified ones of the wireless identification  
devices using the selected one of the search procedures, wherein the search  
procedures individually include a plurality of steps which are performed to identify the  
wireless identification devices within the wireless communications range of the reader,  
wherein the steps of the selected one of the search procedures are different than the  
steps of a non-selected one of the search procedures. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 2-7, 9-11, 35, 36, 41, 42, 48, 51 and 52 are allowable by virtue of their dependency on claim 1.

Regarding **claim 12**, Becker et al 20040046642 discloses a communications device identification method comprising: identifying a first of a plurality of wireless identification devices within a wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]); identifying a second of the wireless identification devices within the wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]).

The instant invention discloses selecting one of a plurality of different search  
procedures using the identifications of the first and second of the wireless identification  
devices; and identifying at least one unidentified wireless identification device within the  
wireless communications range using the selected one of the search procedures,  
wherein the search procedures individually include a plurality of steps which are  
performed to identify the wireless identification devices within the wireless

communications range of the reader, wherein the steps of the selected one of the search procedures are different than the steps of a non-selected one of the search procedures. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 13-15, 37, 38, 45 and 54 are allowable by virtue of their dependency on claim 12.

Regarding **claim 17**, Becker et al 20040046642 discloses a communications device identification method comprising: providing information regarding a range of identifiers of wireless communications devices which may be within a wireless communications range of a reader; providing information regarding a number of wireless communications devices which may be within the wireless communications range.

The instant invention discloses selecting a binary search procedure if  $M \leq N/\log_2(N)$ , wherein M is the range of the identifiers of the wireless communications devices and N is the number of wireless communications devices; and selecting a walk-through search procedure if  $M > N/\log_2(N)$ . The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record.

Regarding **claim 18**, Becker et al 20040046642 discloses a communications method comprising: providing a first group of wireless identification devices within a wireless communications range of a reader at a first moment in time; providing first identification information regarding the first group.

The instant invention discloses first selecting one of a plurality of different search procedures for identifying the wireless identification devices of the first group, wherein the first selecting comprises selecting using the first identification information; identifying unidentified ones of the wireless identification devices of the first group using the selected one of the search procedures; providing a second group of wireless identification devices within the wireless communications range of the reader at a second moment in time; providing second identification information regarding the second group; second selecting an other of the different search procedures using the second identification information; and identifying unidentified ones of the wireless identification devices of the second group using the selected other of the search procedures. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 19 and 46 are allowable by virtue of their dependency on claim 18.

Regarding **claim 20**, Becker et al 20040046642 discloses a wireless communications reader (tag reader 16, see fig. 1, p.2, [0025]) comprising: an antenna configured to communicate wireless signals within a wireless communications range (antenna 16, see fig. 1, p.2, [0026]); and processing circuitry coupled with the antenna (microprocessor 54, see fig. 3, p.4, [0046]) and configured to implement wireless communications with a plurality of wireless identification devices (RFID tags 14, see fig. 1, p.2, [0025]) within the wireless communications range via the antenna (see fig. 1, p.2, [0025]), to analyze a number of wireless identification devices which may be present within the wireless communications range with respect to a range of identifiers of

wireless identification devices (group address, see p.4, [0048]), which may be present within the wireless communications range (the search or interrogation procedures are searching for a group of RFID tags based on the first nine bits of a 12 bit group address, or searching for the group of RFID tags using the first five and last four bits of the 12 bit group address, see p.5, [0057]-[0058]).

The instant invention discloses said processing circuitry being configured to select one of a plurality of search procedures using the analysis, and to identify at least one of the wireless identification devices within the wireless communications range using the selected search procedure wherein the search procedures individually include a plurality of steps which are performed to identify the wireless identification devices within the wireless communications range of the reader, wherein the steps of the selected one of the search procedures are different than the steps of a non-selected one of the search procedures. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 21-28, 39, 40, 43, 44 and 56 are allowable by virtue of their dependency on claim 20.

Regarding **claim 29**, Becker et al 20040046642 discloses a wireless communications system comprising: a wireless communications reader configured to implement wireless communications within a wireless communications range; a first group of wireless identification devices located within the wireless communications range at a first moment in time; a second group of wireless identification devices located within the wireless communications range at a second moment in time.



The instant invention discloses wherein the wireless communications reader is configured to obtain the identity of at least one of the wireless identification devices of the first group using a first search procedure and to obtain the identity of at least one of the wireless identification devices of the second group using a second search procedure different than the first search procedure; and wherein the wireless communications reader is configured to select the first and the second search procedures using an analysis of group identification information of respective ones of the first group and the second group. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 30 and 31 are allowable by virtue of their dependency on claim 29.

Regarding **claim 32**, Becker discloses an article of manufacture comprising: at least one computer-readable storage medium comprising executable instructions stored thereon (see figs. 1 and 3, p.2, [0026], p.3-4, [0045]) that are configured to cause processing circuitry of a wireless communications reader (tag reader 12, see fig. 1, p.2, [0026]) to: access information (group address, see p.4, [0048]) regarding a plurality of wireless identification devices which may be within a wireless communications range of the wireless communications reader (see p.4, [0048], p.5, [0056]-[0058]).

The instant invention discloses selecting one of a plurality of different search procedures using the accessed information, wherein the different search procedures comprise procedures for identifying unidentified ones of the wireless identification devices; and identify unidentified ones of the wireless identification devices using the selected one of the search procedures, wherein the search procedures individually

include a plurality of steps which are performed to identify the wireless identification devices within the wireless communications range of the reader, wherein the steps of the selected one of the search procedures are different than the steps of a non-selected one of the search procedures. The above novel features in combination with other limitations of the claim are neither taught, suggested, nor made obvious by Becker et al or any other prior art of record. Claims 33, 34, 47, 49, and 58 are allowable by virtue of their dependency on claim 32.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/

Supervisory Patent Examiner, Art Unit 2617